

## **REMARKS**

### **I. Status of the Application**

Claims 1-56 are pending. The Action objects to the drawings and to Claims 12, 29 and 45 for informalities. Claims 1-8, 10-13, 16-25, 27, 28, 30, 33-41, 43, 44, 46 and 49 stand rejected under Section 102(b). The remaining pending claims stand rejected under Section 103(a). The objections and rejections are addressed below.

### **II. The Drawing Objection**

The Action objects to the drawings for the absence therein of illustration of a cable being cored with a standard coring tool such that less than a 360 degree residue remains on the inner surface of the outer conductor, as is recited in Claims 18 and 34. Applicants respectfully submit that this feature is unnecessary for illustration, as those skilled in this art will understand the language of the claim without illustration. Also, the meaning of the language is explained at page 10, lines 10-20 of the specification.

In the event that the Examiner disagrees with Applicants' position on this issue, Applicants are willing to provide an additional figure that would not add any new matter to the application in view of the explanatory passage cited above.

### **III. The Claim Objections**

The Action objects to Claims 12, 29 and 45 for the inclusion of the "conductor" without the modifier "inner". Amendments have been made to these claims above to obviate this objection.

### **IV. The Art Rejections**

The Action rejects (a) Claims 1-8, 10-13 and 16 under Section 102(b) as anticipated by U.S. Patent No. 5,959,245 to Moe et al. (Moe), (b) Claims 1, 17-25, 27, 28, 30, 33-41, 43, 44, 46 and 49 under Section 102(b) as anticipated by U.S. Patent No. 5,831,215 to Ziemek et al. (Ziemek), (c) Claim 9 under Section 103(a) as obvious based on Moe, (d) Claims 14 and 15

under Section 103(a) as obvious based on Moe in view of U.S. Patent No. 4,343,660 to Martin (Martin), (e) Claims 26 and 42 under Section 103(a) as obvious based on Ziemek, (f) Claims 29 and 45 under Section 103(a) based on Ziemek in view of Moe, (g) Claims 31, 32, 47 and 48 under Section 103(a) as obvious based on Ziemek in view of Martin, and (h) Claims 50-56 under Section 103(a) as obvious based on U.S. Patent No. 6,205,286 to Chraplyvy et al. (Chraplyvy) in view of Moe. These rejections are addressed below.

**A. Section 102(b) Rejections Based on Moe**

In rejecting Claims 1-8, 10-13 and 16 under Section 102(b) as anticipated by Moe, the Action states that Moe discloses:

a coaxial cable (Figure 1, cols 3 and 4) comprising a metallic inner conductor formed of a first material and having a first thickness, a dielectric layer circumferentially surrounding the inner conductor formed of a second material and having a second thickness, a metallic outer conductor circumferentially surrounding the dielectric layer of a third material and having a third thickness, and a polymer jacket circumferentially surrounding the outer conductor formed of fourth material and having a fourth thickness . . . . Re claims 1-8 and 16, the cable of Moe et al. comprises structure and materials as claimed. Accordingly, the properties and characteristics as recited in the claimed invention are inherent from the cable of Moe et al.

The Action at pages 3-4. Based on these findings, the Action concludes that Moe anticipates the subject matter of the listed claims.

In response, Applicants note that Claim 1 recites, in pertinent part:

wherein at least one of the first material, first thickness, second material, second thickness, third material, third thickness, fourth material and fourth thickness is selected so that the cable has:

(a) *a usable bandwidth between about 5 MHz and the cut-off frequency of the cable;*

(b) *a minimum bend radius of less than about 5 times the jacket outer diameter; and*

**(c) *a velocity of propagation of greater than about 88.***

Thus, Claim 1 clearly recites that at least one of the materials and thicknesses of the inner conductor, the dielectric layer, the outer conductor, and the jacket are selected such that the cable has the properties set forth above. Applicants are unable to find any of the properties recited in Claim 1 in Moe, much less all of the properties of Claim 1. The Action appears to be taking the position that, because the cable disclosed in Moe has an inner conductor, a dielectric layer, an outer conductor, and a jacket, it inherently possesses the properties recited in Claim 1. This is not a proper application of the law of inherency. Instead, it must be shown that the prior art possesses the properties (although it need not be shown that the prior art inventor was aware of these properties). *See, E.I. duPont & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430 (Fed. Cir. 1988). There is nothing in Moe to indicate that the cable disclosed therein has the properties recited in Claim 1 (and, in fact, Applicants submit that the Moe cable does not have the recited properties). As such, Applicants respectfully submit that the rejection of Claim 1 and claims depending therefrom is improper, and respectfully requests that this rejection be withdrawn.

**B. Section 102(b) Rejections Based on Ziemek**

In rejecting Claims 1, 17-25, 27, 28, 30, 33-41, 43, 44, 46 and 49 under Section 102(b) as anticipated by Ziemek, the Action states that Ziemek discloses:

a coaxial cable (Figures 1-5) comprising a metallic inner conductor formed of a first material and having a first thickness, a dielectric layer circumferentially surrounding the inner conductor formed of a second material and having a second thickness, a metallic outer conductor circumferentially surrounding the dielectric layer of a third material and having a third thickness, and a polymer jacket circumferentially surrounding the outer conductor formed of fourth material and having a fourth thickness, wherein the dielectric layer can be cored from the cable with a conventional coring tool such that less than a 360 degree residue remains on the inner surface of the outer conductor . . . . Re claims 1, 18-25, 33-41 and 49, the cable of Ziemek et al. comprises structure and materials as claimed. Accordingly, the properties and characteristics as recited

in the claimed invention are inherent from the cable of Ziemek et al.

The Action at page 4. Based on these findings, the Action concludes that Ziemek anticipates the listed claims.

In response, Applicants note that Claims 18 and 34 recite, in pertinent part:

18. A coaxial cable . . .  
wherein at least one of the first material, first thickness, second material, second thickness, third material, third thickness, fourth material and fourth thickness is selected ***so that the dielectric layer can be cored from the cable with a standard coring tool such that less than a 360 degree residue remains on the inner surface of the outer conductor*** and so that the cable has:  
(a) a usable bandwidth between about 5 MHz and the cut-off frequency of the cable; and  
(b) a minimum bend radius of less than about 5 times the jacket outer diameter.

34. (original) A coaxial cable . . .  
wherein at least one of the first material, first thickness, second material, second thickness, third material, third thickness, fourth material and fourth thickness is selected ***so that the dielectric layer can be cored from the cable with a standard coring tool such that less than a 360 degree residue remains on the inner surface of the outer conductor*** and so that the cable has:  
(a) a usable bandwidth between about 5 MHz and the cut-off frequency of the cable; and  
(b) a velocity of propagation of greater than about 88 percent.

Thus, like Claim 1, Claims 18 and 34 recite that at least one of the materials and thicknesses of the inner conductor, the dielectric layer, the outer conductor, and the jacket are selected such that the cable has the properties set forth above.

Turning first to Claim 1, Ziemek fails to disclose or suggest, at a minimum, the recited minimum bend radius recited in Claim 1. As was discussed above, the Action's reliance on the

position that the recited properties and characteristics are inherent is misplaced, as there is nothing in Ziemek to suggest that the disclosed cable has the recited minimum bend radius. As such, Applicants submit that the rejection of Claim 1 and claims depending therefrom under Section 102(b) based on Ziemek is improper and should be withdrawn.

Regarding Claims 18 and 34, each recites that the dielectric layer "can be cored from the cable with a standard coring tool such that less than a 360 degree residue remains on the inner surface of the outer conductor." There is nothing in Ziemek to suggest that this is the case. Ziemek discusses the removal of dielectric material from the inner conductor to form the "cutouts 15, 15'" shown in Ziemek (prior to the application of the outer conductor), but this process step does not disclose or suggest the removal of the dielectric layer from the outer conductor with a conventional coring tool. Consequently, Applicants submit that the rejections of Claims 18 and 34 under Section 102(b) based on Ziemek should be withdrawn.

#### **C. The Rejections under Section 103(a)**

In view of the above-noted deficiencies of Moe and Ziemek, and because none of the cited secondary references (Martin or Chraplyvy) disclose or suggest the claim elements absent from Moe and Ziemek, Applicants respectfully submit that the rejections under Section 103(a) cannot stand, and respectfully request that they be withdrawn.

#### **IV. Additional Discussion**

Applicants submit that the dependent claims are also independently patentable for the recitation of subject matter not disclosed or suggested in the art of record. For example, each of Claims 16, 33 and 49 recites that the cable withstands at least five cycles in reverse bend fatigue tests (the test being described in the specification at page 10, lines 1-5). None of the prior art references suggest that the cables described therein have this property, or even suggest that it is desirable. Thus, Applicants submit that these claims are patentable over the art of record for this additional reason. Other dependent claims also define over the art of record.


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V. **Conclusion**

Inasmuch as all of the outstanding issues raised in the Action have been addressed, Applicant respectfully submits that the application is in condition for allowance, and requests that it be passed to allowance and issue.

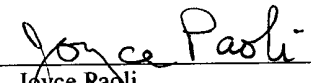
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